PRATT & WHITNEY PLANT
Kinematics Building
(Pratt & Whitney Plant, Building No. 16)
1500-2000 East Bannister Road
Kansas City
Jackson County
Missouri

HAER MO-118-G

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
Midwest Regional Office
National Park Service
601 Riverfront Drive
Omaha, Nebraska 68102

HISTORIC AMERICAN ENGINEERING RECORD

PRATT & WHITNEY PLANT
Kinematics Building
(Pratt & Whitney Plant, Building No. 16)

HAER No. MO-118-G

Location: 1500–2000 East Bannister Road, Kansas City, Jackson County, Missouri

Present Owner: U.S. Department of Energy, National Nuclear Security Administration

Present Use: The Kinematics Building contains a centrifuge, below grade, and is currently used as a storage facility.

Significance: This building served as a testing facility to study motion (velocities and acceleration) of Pratt & Whitney engine parts. From the initial years of Pratt & Whitney with its Double Wasp engines, through the years of Westinghouse, responsible for manufacturing the J34 Gas Turbine engine, to the development of thermonuclear weapon components during the Cold War, the Kansas City Plant housed a multi-disciplinary engineering and manufacturing facility tied to the nation's homeland security. Due to the diversified requirements of subsequent corporations, the original Pratt & Whitney Plant was modified and added to, meeting the needs of ongoing technological advances while retaining the structural elements that made this complex a landmark of American industrial design.

Report prepared by: Cydney Millstein, principal, architectural historian
Architectural & Historical Research, L.L.C., Kansas City, Missouri

Mary Ann Warfield, cultural historian, Kansas City, Missouri

Date: April 9, 2012

PART I. HISTORICAL INFORMATION

A. Physical History

1. Date of Construction: 1943

2. Architect/Engineer: Albert Kahn Associated Architects and Engineers, Detroit, Michigan

3. Builder/Contractor/Supplier: Long-Turner Construction Company, Kansas City, Missouri

4. Original Plans: Yes

5. Alterations and Additions: Yes (See Part II: Section B)

B. Historical Context

The Kinematics Building originally served as a facility to study the motion of objects designed by Pratt & Whitney.

PART II. ARCHITECTURAL INFORMATION

A. General Statement

The Kinematics Building, a one-story masonry block building (with a small room slightly below grade), is located on the east side of the complex, adjacent to the old Sewage Lagoon (now filled in) and south of the Explosives Bunker. The building occupies 5,331 gross square feet and is approximately 50’ x 100’.

1. Architectural Character: Modern Industrial

2. Condition of Fabric: Excellent

B. Description of Exterior

The main façade faces west. Entrance to the building is gained through a large corrugated metal addition (placed at the west façade) that features secondary entrances on the north and south facades and prominent exhaust pipes. The main unit is constructed of masonry block and features a flat roof. Overhead doors are located at the north and south façades next to shed roof additions. A single- leaf metal door, reached by a metal staircase, marks the south addition.

C. Description of Interior

Due to restricted access, it was not possible to examine the interior of the building.

D. Site

The Kinematics Building is located at the northeast section of the plant complex, south of Building No. 76, and west of the former lagoon.

PART III. BIBLIOGRAPHY

Primary Sources:

Kahn, Albert. Archives, Albert Kahn and Associates, Detroit, Michigan.

Kahn, Albert and Associates. "Factory Construction." *Architectural Forum* October 1942.

Kahn, Albert Associated Architects & Engineers, Inc. Aircraft Engine Plant for United Air Corporation of Missouri. Plans. Various dates. Job No. 1927. Archives at Albert Kahn Associates, Detroit, Michigan.

_____. Plans. Various dates. Job No. 1927. Archives at the National Nuclear Security Administration.

NNSA Archives. Bannister Federal Complex, 1500-2000 E. Bannister Road, Kansas City, Missouri.